

PUBLIC INFORMATION SESSION:  
Old Fall River Road Landfill  
Dartmouth, MA

MassDEP's Evaluation of Recent  
Groundwater Sampling  
& EPA Historical Data  
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# Landfill Current Status

## Not in Compliance

- 23 acre unlined and uncapped landfill
- Rainwater percolating through solid waste that becomes contaminated is called Leachate
- Waste accepted: construction and demolition debris from 1954 -1974
- Landfill abutted by wetlands and Cole Brook on 3 sides
- Unapproved agricultural activities and a home
- No municipal public water system in vicinity of landfill

# Environmental Protection Agency (EPA) & Haley & Aldrich Investigations

## Environmental Protection Agency Sampling

- 14 soil samples
- 24 sediment samples
- 7 groundwater monitoring wells installed
- 15 groundwater samples and 1 on-site private well

## Haley & Aldrich Sampling

- 6 monitoring wells installed
- 13 groundwater samples

# EPA Surficial Soil Sampling 1990 and 2004

- 14 soils samples analyzed for volatile organic compounds, semi-volatile organic compounds, pesticides, PCBs, metals & cyanide
- 1990 - 7 compounds (5 semi- volatiles, 1 pesticide and one metal: total chromium) at concentrations **greater than** MassDEP's cleanup standards within landfill footprint
- 2004 - volatile organic compounds, semi-volatile and inorganic compounds detected. **No compounds** detected in 2004 at concentrations greater than MassDEP's cleanup standards
- MassDEP Evaluation: Contaminant concentrations consistent with soil samples located within a solid waste landfill
  - 23 acre landfill and solid waste contaminated surficial soils outside landfill footprint need to be consolidated and capped

# Sediment Sampling 2000 and 2004

- 22 sediment samples
- No PCBs detected
- Beryllium, antimony and cadmium above background concentrations and cadmium less than sediment screening value 5 ppm
- Pesticide greater than sediment screening criteria but also in background samples
- Iron and manganese greater than background, leachate likely contributing to concentrations

MassDEP's Evaluation: Landfill impacted some sediments but the low concentrations detected are unlikely to result in environmental harm.

Capping the landfill would reduce future impacts

# EPA 2004 Groundwater Assessment

- 7 monitoring wells and 15 groundwater samples
- No pesticides or PCBs detected
- 1,1,1 Trichloroethane less than drinking water standard in one monitoring well
- Cyanide in 2 samples less than drinking water standard but greater than an Ecological risk standard
- Potable well meets drinking water standards

MassDEP Evaluation: No impacts to nearby groundwater drinking water supply sources are known or suspected. Cap landfill and complete assessment with long term monitoring

# Haley & Aldrich Groundwater Assessment

- 6 monitoring wells and 13 groundwater samples
- Landfill leachate indicators in groundwater monitoring samples and 3 volatile organic compounds less than drinking water standards in monitoring wells near landfill perimeter
- Groundwater flow radially toward brook
- Regional flow expected Southwest

MassDEP Evaluation: No evidence of immediate risk to human health from groundwater impacts

Cap landfill and complete assessment with long term monitoring



# Remedial Actions

## Landfill not in compliance

- Solid waste regulations require final cover system (standard remedial action for solid waste landfills) and long term monitoring
- Final cover system reduces leachate up to 99%
- Final cover system will reduce leachate impacts to groundwater, surface water, sediments and wetlands
- Final cover system will eliminate contact with solid waste material
- Storm water management system will improve surface water quality and eliminate pathway for contaminants to wetlands and surface waters



# If you have questions?

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## Resources:

MassDEP's and consultant's presentations, public comment postings, and reports

- <http://www.mass.gov/eea/agencies/massdep/about/contacts/southeast-region.html#FacilitiesProjectsSitesofInterest>